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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,579	08/29/2001	Yasunori Maeshima	213221US6	5010

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,579

Applicant(s)

MAESHIMA ET AL.

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Gubbi.

Regarding claim 1 Gubbi teaches a communication apparatus employing a plurality of communication devices to construct a wireless network to be a control station transmitting management information in the wireless network (see col. 3, lines 10-14 and col. 6, lines 14-16). Gubbi teaches transmitting information among a plurality of communication devices (see col. 6, lines 12-15). Gubbi teaches determining as to whether, when the control station disappears from the wireless network, in order that any one of the other communication devices is newly operated as a control station (see col. 4, lines 11-20). Gubbi teaches the other communication devices have a control function as a control station candidate or not (see col. 3, lines 24-30). Gubbi teaches setting priority order for each of control station candidates when there exist a plurality of communication devices to be the control station candidates (see col. 4, lines 53-57 & 61-63). Gubbi teaches notifying the wireless network of priority order information of the control station candidates (see col. 4, lines 46-51 & 61-65).

Regarding claim 5 Gubbi teaches a communication method of a control station transmitting management information in a wireless network (see col. 3, lines 10-14). Gubbi

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teaches the communication method employing a plurality of communication devices to construct the wireless network (see col. 6, lines 12-15). Gubbi teaches determining as to whether, when the control station disappears from the wireless network, in order that any one of the other communication devices is newly operated as a control station (see col. 4, lines 11-20). Gubbi teaches other communication devices have a control function as a control station candidate or not (see col. 3, lines 24-30). Gubbi teaches setting priority order for each of control station candidates when there exist a plurality of communication devices to be the control station candidates (see col. 4, lines 53-57 & 61-63). Gubbi teaches notifying the wireless network of priority order information of the control station candidates (see col. 4, lines 46-51 & 61-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gubbi in view of Moriguchi.

Regarding claim 2 Gubbi teaches a device as recited in claim 1 except for specifying, as priority order information, stand-by times corresponding to the times until the respective control station candidates start to reconstruct the wireless network. Moriguchi teaches specifying, as priority order information, stand-by times corresponding to the times until the respective control station candidates start to reconstruct the wireless network (see col. 16, lines 52-56 & 63-67 and col. 17, lines 1-8 & 12-22). It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to make the device adapt to include specifying, as priority order information, stand-by times corresponding to the times until the respective control station candidates start to reconstruct the wireless network because this would allow for efficient recovery from network failure.

Regarding claim 3 Gubbi teaches a device as recited in claim 1 except for setting the priority order in the order of the number of other communication devices capable of being connected with the control station candidate for the respective control station candidates. Moriguchi teaches setting the priority order in the order of the number of other communication devices capable of being connected with the control station candidate for the respective control station candidates (see col. 17, lines 12-22 and col. 19, lines 7-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include setting the priority order in the order of the number of other communication devices capable of being connected with the control station candidate for the respective control station candidates because this would allow for efficient recovery from network failure.

Regarding claim 4 Gubbi teaches a device as recited in claim 1 except for setting the priority order in the order of communication quality between the control station candidate and other communication devices for the respective control station candidates. Gubbi does teach setting priority according to bandwidth requirements between the control station candidate and other communication devices (see col. 4, lines 46-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include setting the priority order in the order of communication quality between the control station

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candidate and other communication devices for the respective control station candidates because this would allow for efficient recovery from network failure.

Regarding claim 6 Gubbi and Moriguchi teach a device as recited in claim 2 and is rejected given the same reasoning as above.

Regarding claim 7 Gubbi and Moriguchi teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 8 Gubbi and Moriguchi teach a device as recited in claim 4 and is rejected given the same reasoning as above.

Regarding claim 9 Gubbi teaches a communication apparatus in a wireless network composed of a control station and a plurality of communication devices (see col. 3, lines 10-14 and col. 6, lines 14-16). Gubbi teaches transmitting information among the other communication devices (see col. 6, lines 12-15). Gubbi teaches receiving priority order information (see col. 4, lines 61-65). Gubbi teaches setting communication devices as control station candidates stored in a table (see col. 4, lines 46-51). Gubbi does not specifically teach priority information representing stand-by times different in each communication device from the control station and performing communication control as a control station in the wireless network when the stand-by time elapses. Moriguchi teaches priority information representing stand-by times different in each communication device from the control station and performing communication control as a control station in the wireless network when the stand-by time elapses (see col. 16, lines 52-56 & 63-67 and col. 17, lines 1-8 & 12-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include priority information representing stand-by times different in each communication device from the control station and

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performing communication control as a control station in the wireless network when the stand-by time elapses because this would allow for an improved dynamic network control method.

Regarding claim 10 Gubbi teaches a communication means connected with a plurality of communication terminals via a network to transmit information among the communication terminals (see col. 3, lines 10-14 and col. 6, lines 14-16). Gubbi teaches employing the communication means to transmit management information to the respective communication terminals to manage information transmission among the respective communication terminals (see col. 4, 24-32). Gubbi teaches specifying priority order (see col. 4, lines 61-64). Gubbi teaches an alternate master node managing the information transmission among respective communication terminals when transmission of the management information becomes impossible (see col. 4, lines 5-10). Gubbi does not specifically teach specifying two or more communication terminals in the plural communication terminals connected via a network as slave control stations. Moriguchi teaches specifying two or more communication terminals in the plural communication terminals connected via a network as slave control stations (see col. 7, lines 23-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include specifying two or more communication terminals in the plural communication terminals connected via a network as slave control stations because this would allow for an improved dynamic network control method.

Regarding claim 11 Moriguchi teaches setting the priority order of the respective communication terminals (see col. 19, lines 22-31). Moriguchi teaches specifying two or more communication terminals in the plural communication terminals connected via the network as

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slave control stations based on information transmission condition of the respective communication terminals (see col. 16, lines 63-67 and col. 17, lines 1-11).

Regarding claim 12 Gubbi teaches the information transmission condition of the communication terminals determined in the management means is a condition determined from the number of communication terminals capable of direct communication in the network or communication quality with the respective communication terminals (see col. 5, lines 25-35).

Regarding claim 13 Gubbi teaches transmitting information among a plurality of communication terminals via a network (see col. 6, lines 12-15). Gubbi teaches employing the communication means to transmit management information to the respective communication terminals to manage information transmission among the respective communication terminals when becoming a master control station on the network (see col. 4, lines 11-20). Gubbi teaches controlling information transmission based on the management information from a communication terminal specified as a master control station when becoming a communicating station (see col. 4, lines 61-67 and col. 5, lines 1-2). Gubbi teaches detecting that a communication terminal specified as a master control station on the network is incapable of communication when being a alternative master control station on the network (see col. 4, lines 13-20). Gubbi does not specifically teach a slave control station on the network or managing the information transmission among the respective communication terminals after waiting only a time based on present priority order. Moriguchi teaches a slave control station on the network (see col. 7, lines 23-25). Moriguchi teaches managing the information transmission among the respective communication terminals after waiting only a time based on present priority order (see col. 19, lines 5-15). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to make the device adapt to include a slave control station on the network or managing the information transmission among the respective communication terminals after waiting only a time based on present priority order because this would allow for an improved dynamic network control method.

Regarding claim 14 Gubbi a communication control method of a network composed of a plurality of communication terminals (see col. 6, lines 14-16). Gubbi teaches managing information transmission among the plurality of communication terminals while setting one of communication terminals as a master control station (see col. 4, lines 11-20). Gubbi teaches specifying priority order (see col. 4, lines 61-64). Gubbi teaches when the master control station becomes incapable of communication the alternative control station manages the information transmission when the information transmission can be managed (see col. 4, lines 11-20). Gubbi does not specifically teach setting two or more communication terminals in the network other than the master control station as slave control stations after priority order according to which to manage the respective terminals is determined, or trying to manage the information transmission among the respective communication terminals from a slave control station having higher priority order. Moriguchi teaches setting two or more communication terminals in the network other than the master control station as slave control stations after priority order according to which to manage the respective terminals is determined (see col. 16, lines 63-67 and col. 17, lines 1-5). Moriguchi teaches trying to manage the information transmission among the respective communication terminals from a slave control station having higher priority order (see col. 19, lines 22-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include setting two or more communication

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terminals in the network other than the master control station as slave control stations after priority order according to which to manage the respective terminals is determined, or trying to manage the information transmission among the respective communication terminals from a slave control station having higher priority order because this would allow for an improved dynamic network control method.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haartsen U.S Patent No. 6,590,928 discloses a frequency hopping piconets in an uncoordinated wireless multi-user system.

Asai U.S Patent No. 6,603,747 discloses a communication control method and communication control apparatus.

Callaway, Jr. et al. U.S Patent No. 6,275,500 discloses a method and apparatus for dynamic control of talk groups in a wireless network.

Hughes U.S Patent No. 6,553,020 discloses a communications system and method.

Sugaya EP 0 998 154 A2 discloses a wireless communication control method and wireless transmission apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 18, 2004



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600